Amendments to the Specification:

Please amend paragraph **[01]** as indicated in the following:

[01] This application is related to commonly assigned and concurrently filed U.S. Pat. Appl. No. **[[__/___,___]]** 10/020,461 entitled "METHOD OF MANUFACTURING AN OPTICAL CORE," by Hichem M'Saad ~~**(Attorney Docket Number A6123/T43700)**~~, the entire disclosure of which is herein incorporated by reference for all purposes.

Please amend paragraph **[63]** as indicated in the following:

[63] Fig. 5 shows one embodiment in which an optical waveguide structure, such as shown in Fig. 3, may be formed. The process starts at block 504 and an undercladding layer 7a is deposited over the substrate 6 at block 508. Such deposition may be performed by any suitable method, including for example by deposition with a CVD (including PECVD and HDP-CVD) technique. At block 516, the cores 8 are formed on the undercladding layer. Typically, cores 8 are formed by depositing a core layer, which is subsequently patterned and etched to produce a plurality of discrete core structures. The cores may be deposited, for example, in accordance with commonly assigned and concurrently filed U.S. Pat. Appl. No. **[[__/___,___]]** 10/020,461 entitled "METHOD OF MANUFACTURING AN OPTICAL CORE," by Hichem M'Saad ~~**(Attorney Docket Number A6123/T43700)**~~, the entire disclosure of which has been incorporated by reference. At block 520, the uppercladding layer 7b is then deposited over the cores 8 with a high-density plasma, i.e. a plasma having an ion density that is equal to or exceeds 10^{11} ions/cm^3. In one embodiment, the HDP uppercladding layer is deposited in one pass, while in other embodiments, a multiple-pass approach is used. In those embodiments that use a multiple-pass approach, the chamber 13 is typically dry-cleaned after each pass. Such an embodiment may be suitable, for example, for applications requiring a greater total thickness for the layer.